

Amendments to the Claims:

The listing of claims below will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A filter circuit apparatus for suppression of spurious signals in a superheterodyne circuit for receiving communication in channels comprising:

a first analog active twin-T filter in a first signal path defining a first sharp notch at the center a second adjacent channel; and

a first analog passive twin-T filter section coupled to receive output of the first analog active twin-T filter, defining a second sharp notch at the center of a next adjacent channel, to suppress spurious signals at frequencies of modulation product.

2. (Currently Amended) The apparatus of claim 1 wherein said superheterodyne circuit employs an in-phase and a quadrature phase signal path, said first signal path corresponding to said ~~first~~in-phase signal path, the apparatus further including:

a second analog active twin-T filter in a second signal path defining said first sharp notch at the center the second adjacent channel, said second signal path corresponding to a quadrature phase signal path; and

a second analog passive twin-T filter section coupled to receive output of the second analog active twin-T filter, defining said second sharp notch at the center of a next adjacent channel, to suppress spurious signals at frequencies of modulation product.

3. (Currently Amended) The circuit according to claim 2 wherein said superheterodyne circuit employs differentials feed in each one of said first signal path and said second signal path, the apparatus further including:

a third analog active twin-T filter in a third signal path defining said first sharp notch at the center of the second adjacent channel, said third signal path comprising a differential of said in-phase signal path;

a third analog passive twin-T filter section coupled to receive output of the third analog active twin-T filter, defining said second sharp notch at the center of a next adjacent channel, to suppress spurious signals at frequencies of modulation product, said third analog passive twin-T section being cross coupled with said first analog passive twin-T section;

a fourth analog active twin-T filter in a fourth signal path defining said first sharp notch at the center the second adjacent channel, said fourth signal path comprising a differential of said quadrature-phase signal path; and

a fourth analog passive twin-T filter section coupled to receive output of the fourth analog active twin-T filter, defining said second sharp notch at the center of a next adjacent channel, to suppress spurious signals at frequencies of modulation product, said fourth analog passive twin-T section being cross coupled with said second analog passive twin-T section.

4. (Currently Amended) The apparatus according to claim 3 wherein each active twin-T section is in active bootstrap configuration.

5. (Currently Amended) The apparatus according to claim 1 wherein the active twin-T section is in active bootstrap configuration.

6. (Original) A method for processing multiple signal modes according to different radio standards of a received RF signal, comprising:

performing downconversion of the received RF signal to produce analog I and Q signals; and for each of the analog I signal and the analog Q signal, filtering out unwanted signals by:

for a first standard, processing the analog signal using a first passive notch filter to produce a first filtered signal; and

for a second standard, processing the analog signal using an active notch filter to produce a second filtered signal;

wherein the active notch filter exhibits smaller group delay than the passive notch filter.

7. (Original) The method according to claim 6 further includes, for the second standard, processing the second filtered signal using a second passive notch filter to produce a third filtered signal.

8. (New) A dual-mode communications receiver, comprising:
a demodulator operable to provide in-phase and quadrature-phase baseband signals;

a first active twin-T filter having an input coupled to an in-phase output of said demodulator;

a first passive notch filter network having an input coupled to the in-phase output of said demodulator.

a second active twin-T filter having an input coupled to a quadrature-phase output of said demodulator; and

a second passive notch filter network having an input coupled to the quadrature-phase output of said demodulator.

9. (New) The dual-mode communications receiver of Claim 8 wherein said first and second passive notch filters are employed to filter communications signals complying with a first standard and said first and second active twin-T filters are employed to filter communications signals complying with a second standard.

10. (New) The dual-mode communications receiver of Claim 9 wherein the first standard is characterized by a channel spacing that is greater than a channel spacing associated with the second standard.

11. A filter apparatus, comprising:
an active twin-T filter; and
a passive notch filter network coupled to the active twin-T filter,
wherein at least said active twin-T filter is operable to filter communications signals associated with a first wireless communications standard.

12. (New) The filter apparatus of Claim 11 wherein said passive notch filter network is operable to filter communications signals associated with a second wireless communications standard.